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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/820,562 | 04/08/2004 | Phillip M. Braun | 00216-638001 | 8663 |
| 26163 7590 07/27/2009 FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022 | | | | |
| EXAMINER | | | | |
| CHIN, RANDALL E | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 3723 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 07/27/2009 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary

Application No.

10/820,562

Applicant(s)

BRAUN ET AL.

Examiner

Randall Chin

Art Unit

3723

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27, 29-36 and 117-120 is/are pending in the application.
- 4a) Of the above claim(s) 20, 21 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 22-27, 29-33, 35, 36 and 117-120 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Reissue Application

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 1-2, the recitation "An apparatus comprising a toothbrush comprising" is awkwardly written and makes the scope of the claim vague and indefinite since this language makes it appear that the "apparatus" is some other structure that *includes* a toothbrush which would be inaccurate.

Claim 1, line 7, the recitation "and any other rotatable tooth cleaning element" is awkward and renders the scope unclear since no "rotatable tooth cleaning element" was ever previously set forth in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 8, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 5-76416 (hereinafter Japan '416) in view of Avidor 5,524,319 (hereinafter Avidor).

As well as claim 1 is understood, Japan '416 discloses in Figs. 1, 2 and 3, for example, an apparatus comprising a toothbrush comprising a handle, a head extending from the handle, and a plurality of tufts 6, 6 of bristles extending from the head, each tuft of bristles being supported for rotation about only one axis (i.e., about column-shaped rotary bodies 5 in Figs. 1 and 3). Japan '416 discloses all of the recited subject matter as set forth above with the exception of each tuft of bristles being rotatable independent of one another and any other rotatable tooth cleaning element on the toothbrush head. The patent to Avidor discloses in the Fig. 5 embodiment a toothbrush comprising single rows of tufts of bristles 27 which extend across the width of the head 23 (col. 3, lines 38-52). It would have been obvious to one of ordinary skill in the art to have modified Japan '416 such that the tufts of bristles extend across the width of the column-shaped bodies to define single tufts as suggested by Avidor for the purpose of improving cleaning effectiveness by increasing bristle surface contact area and which would then define tuft of bristles being rotatable independent of one another and any other rotatable tooth cleaning element on the toothbrush head.

As for claims 2 and 3 reciting the range of rotation of each tuft being a range of rotation of "about 60 degrees" or "about 30 degrees to either side of the vertical position", it appears that the tufts clearly rotate "about 60 degrees" or "about 30

degrees" to either side of the vertical position viewing Fig. 3 of Japan '416 (see phantom lines). Further, the tufts are capable of having a range of rotation of "about" 60 degrees or "about" 30 degrees to either side of the vertical position. Moreover, even assuming arguendo that the tufts do not have a range of rotation of "about 60 degrees" or "about 30 degrees" to either side of the vertical position, one skilled in the art would find it obvious to optimally choose such a claimed range or value, or optimal range for that matter, for the purpose of enhancing brushing effectiveness, such as in interproximal areas, and also merely depends on desired brushing results.

As for claim 5, in Japan '416, each tuft includes at its non-brushing end a column-shaped rotary body or "bearing" 5 (Fig. 2) which is substantially cylindrical in shape in its major portion, each bearing 5 being secured in its own hollow space within the head, each bearing allowing rotation of its respective tuft.

As for claim 8, in Japan '416, a portion of the head is deemed to limit rotation or range of rotation of each tuft (Figs. 2 and 3).

As for claim 9, in Japan '416, the tufts are deemed capable of being rotated by contact with a portion of an oral cavity. Further, such a recitation can merely depend on how one holds or orients the toothbrush with respect to the oral cavity or how one manipulates the toothbrush itself during brushing.

As for claim 11, the axis about which each tuft is rotatable is substantially perpendicular to a long axis of the tuft (Fig. 2).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of Avidor as applied to claim 1 above, and further in view of DE 198 17 704 (hereinafter DE '704).

DE '704 discloses in Figs. 1 and 2 a toothbrush comprising at least one tooth cleaning element 8 (Fig. 2) which cannot be rotated. It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 toothbrush with at least one tooth cleaning element which cannot be rotated as suggested by DE '704 to increase the overall brushing effectiveness of the toothbrush by permitting the cleaning of exterior tooth surfaces.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of Avidor as applied to claims 1 and 5 above, and further in view of Grusin 2,263,802 (hereinafter Grusin).

The patent to Grusin teaches in Figs. 1, 3, 4 and 5 a toothbrush comprising a head 2 being made of at least two pieces 6, 7 which are joined together to secure a bearing within the head 2 (p. 1, col. 2, lines 20-28). It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 head with at least two pieces which are joined together as taught by Grusin to more securely clamp or secure the bearing within the head.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of Avidor as applied to claims 1 and 5 above, and further in view of Hokett 2,486,847 (hereinafter Hokett).

Hokett teaches the concept in Figs. 2 and 4 of providing for a viscous substance (e.g., liquid soap or oil as recited in col. 2, lines 30-32) being provided in the head which would provide some resistance to rotation to tufts 16. It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 toothbrush with a viscous substance in the head as taught by Hokett provided in each hollow space which would provide some resistance to rotation of the tufts and thus improve brushing control and technique.

8. Claims 1, 8, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Germany 1 210 409 (hereinafter Germany '409).

As well as claim 1 is understood, Germany '409 discloses in Fig. 2, for example, an apparatus comprising a brush comprising a backing or "handle" 1, a "head" 2 extending from the handle, and a plurality of tufts of bristles (three tufts shown in Fig. 2) extending from the head, each tuft of bristles being supported for rotation about only one axis, each tuft of bristles being rotatable independent of one another and any other rotatable tooth cleaning element on the toothbrush head.

As for claim 1 reciting a "toothbrush" in the preamble, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from

the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

As for claim 8, a portion of the head is deemed to limit rotation of each tuft.

As for claim 10, each tuft includes at its non-brushing end a living hinge 5, each living hinge 5 being "secured partially within the head", each living hinge allowing rotation of its respective tuft.

As for claim 11, the axis about which each tuft is rotatable is substantially perpendicular to a long axis of the tuft (Fig. 2).

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Germany '409.

As for claims 2 and 3 reciting the range of rotation of each tuft being a range of rotation of "about 60 degrees" or "about 30 degrees", it appears from Fig. 2 that the tufts clearly rotate "about 60 degrees" or "about 30 degrees" (see phantom lines). Further, the tufts are capable of having a range of rotation of "about 60 degrees." Moreover, even assuming arguendo that the tufts do not have the claimed range of rotation, one skilled in the art would find it obvious to optimally choose such a claimed range, or any other range for that matter, for the purpose of enhancing brushing effectiveness, such as in interproximal areas, and also merely depends on desired brushing results.

10. Claims 12-19, 22-27, 29, 32, 33, 35, 36, 117 and 120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of Avidor and DE '704.

As for claim 12, Japan '416 teaches in Figs. 1, 2 and 3, for example, an apparatus comprising a toothbrush head 3, and a "second group" of a plurality of tooth cleaning elements 6, 6 extending from the head, each of the elements in the "second group" is supported for rotation about only one axis (i.e., about column-shaped rotary bodies 5 in Figs. 1 and 3). Japan '416 discloses all of the recited subject matter as set forth above with the exception of each element in the second group being independently rotatable with respect to one another and any other tooth cleaning element on the toothbrush head and a "first group" of tooth cleaning elements extending from the head and wherein each of the elements of the first group is nonrotatable, wherein the elements within each of the groups being of a common type and the type of elements in the first group being different from the type of elements in the second group.

The patent to Avidor discloses in the Fig. 5 embodiment a toothbrush comprising single rows of tufts of bristles 27 which extend across the width of the head 23 (col. 3, lines 38-52).

DE '704 discloses in Figs. 1 and 2 a toothbrush comprising a "first group" of tooth cleaning elements 8, 8 extending from the head and wherein each of the elements of the "first group" is nonrotatable.

It would have been obvious to one of ordinary skill in the art to have modified Japan '416 such that the tufts of bristles extend across the width of the column-shaped bodies to define single tufts as suggested by Avidor for the purpose of improving

cleaning effectiveness by increasing bristle surface contact area and which would then define tuft of bristles being rotatable independent of one another and any other rotatable tooth cleaning element on the toothbrush head and to have further provided a first group of tooth cleaning elements extending from the head and wherein each of the elements of the first group is nonrotatable wherein the elements within each of the groups being of a common type and the type of elements in the first group being different (e.g., size-wise) from the type of elements in the second group, as suggested by DE '704, to increase the overall brushing effectiveness of the toothbrush by permitting the cleaning of exterior tooth surfaces.

As for claim 13, all of the tooth cleaning elements of the toothbrush are in the first and second group.

As for claim 14, the first group includes a plurality of tooth cleaning elements (Fig. 2 of DE '704).

As for claim 15, each of the elements in the second group is adjacent to at least one of the elements in the first group.

As for claim 16 reciting that the interproximal residence time of elements in the second group is about 1.6 times or greater than the interproximal residence time of the elements in the first group, it should be noted that the length of the elements in the second group is longer than the length of bristles in the first group (Japan '416, as modified). Thus, it would have been obvious to one of ordinary skill to have provided the interproximal residence time of elements in the second group being about 1.6 times or greater (if not already) than the interproximal residence time of the elements in the first

group through an optimization process to ensure adequate cleaning of interproximal spaces in the oral cavity.

As for claim 17, the elements in the second group are longer than the elements in the first group (Japan '416, as modified).

As for claim 18, in Japan '416, the elements in the second group are deemed made of polymer.

As for claim 19, each of the elements in the second group is a tuft of bristles.

As for claim 22, Japan '416 further teaches a handle 1, and wherein the head 3 extends from the handle 1.

As for claim 23, the axis about which each element in the second group is rotatable is substantially perpendicular to a long axis of the element (Figs. 2 and 3 of Japan '416).

As for claim 24, the elements in the first group are free of spring bias tending to rotate the elements after deflection.

As for claim 117, the type of elements in the first group is structurally different (i.e., size-wise) from the type of elements in the second group (Japan '416, as modified).

As for claim 120, the elements in the first group are rigidly secured to the toothbrush head (Japan '416, as modified).

As for claim 25, Japan '416 teaches in Figs. 1, 2 and 3, for example, an apparatus comprising a toothbrush head 3, and a plurality of tufts of bristles 6, 6 extending from the head, each tuft of bristles being supported for rotation about only

one axis (i.e., about column-shaped rotary bodies 5 in Figs. 1 and 3). Japan '416 discloses all of the recited subject matter as set forth above with the exception of each tuft of bristles being rotatable independent of all other tuft(s) of bristles on the toothbrush head and further including at least one tooth cleaning element which cannot be rotated.

The patent to Avidor discloses in the Fig. 5 embodiment a toothbrush comprising single rows of tufts of bristles 27 which extend across the width of the head 23 (col. 3, lines 38-52).

DE '704 discloses in Figs. 1 and 2 a toothbrush comprising at least one tooth cleaning element 8 which cannot be rotated.

It would have been obvious to one of ordinary skill in the art to have modified Japan '416 such that the tufts of bristles extend across the width of the column-shaped bodies to define single tufts as suggested by Avidor for the purpose of improving cleaning effectiveness by increasing bristle surface contact area and which would then define tuft of bristles being rotatable independent of one another and any other rotatable tooth cleaning element on the toothbrush head and to have further provided at least one tooth cleaning element which cannot be rotated as taught by DE '704 to increase the overall brushing effectiveness and overall brushing surface area of the toothbrush.

As for claims 26 and 27 reciting the range of rotation of each tuft having a range of rotation of "about 60 degrees" or "about 30 degrees to either side of the vertical position", respectively, it appears that the tufts clearly rotate "about 60 degrees" or "about 30 degrees" to either side of the vertical position viewing Fig. 3 of Japan '416

(see phantom lines). Further, the tufts are capable of having a range of rotation of "about" 60 degrees" or "about" 30 degrees" to either side of the vertical position. Moreover, even assuming arguendo that the tufts do not have a range of rotation of "about 60 degrees" or "about 30 degrees" to either side of the vertical position, one skilled in the art would find it obvious to optimally choose such a claimed range or value for the purpose of enhancing brushing effectiveness such as in interproximal areas.

As for claim 29, in Japan '416, each tuft includes at its non-brushing end a "bearing" 5 (Fig. 2) which is substantially cylindrical in shape in its major portion, each bearing being secured in its own hollow space within the head, each bearing allowing rotation of its respective tuft.

As for claim 32, a portion of the head is deemed to limit rotation of each tuft (Figs. 2 and 3).

As for claim 33, the tufts are deemed capable of being rotated by contact with a portion of an oral cavity. Further, such a recitation can merely depend on how one holds or orients the toothbrush with respect to the oral cavity or how one manipulates the toothbrush itself during brushing.

As for claim 35, the axis about which each tuft is rotatable is substantially perpendicular to a long axis of the tuft (Fig. 2 of Japan '416).

As for claim 36, the apparatus of Japan '416 further comprises a handle 1 (Fig. 1).

11. Claims 118 and 119 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view of Avidor and DE '704 as applied to claim 12 above, and further in view of Flewitt 5,896,614 (hereinafter Flewitt).

The patent to Flewitt discloses in Fig. 7 an apparatus wherein the type of elements in a first group 14, 15, 16 is structurally and compositionally different from the type of elements in a second group 12, 13. It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 apparatus with a type of elements in a first group being structurally and compositionally different from the type of elements in a second group as suggested by Flewitt to increase the overall brushing and/or massaging effectiveness of the toothbrush apparatus.

12. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view Avidor and DE '704 as applied to claims 25 and 29 above, and further in view of Grusin.

The patent to Grusin teaches in Figs. 1,3, 4 and 5 a toothbrush comprising a head 2 being made of at least two pieces 6, 7 which are joined together to secure a bearing within the head 2 (p. 1, col. 2, lines 20-28). It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 head with at least two pieces which are joined together as taught by Grusin to more securely clamp or secure the bearing within the head.

13. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '416 in view Avidor and DE '704 as applied to claims 25 and 29 above, and further in view of Hokett.

Hokett teaches the concept in Figs. 2 and 4 of providing for a viscous substance (e.g., liquid soap or oil as recited in col. 2, lines 30-32) being provided in the head which would provide some resistance to rotation to tufts 16. It would have been obvious to one of ordinary skill in the art to have provided the modified Japan '416 toothbrush with a viscous substance in the head as taught by Hokett provided in each hollow space which would provide some resistance to rotation of the tufts.

Conclusion

14. Applicant's arguments with respect to claims 1-19, 22-27, 29-33, 35, 36 and 117-120 have been considered but are moot in view of the new ground(s) of rejection.

With respect to Applicant's arguments based on Germany '409 that claim 1 is directed to a "toothbrush", Germany '409 may not specifically teach a "toothbrush" but such disclosed **structure** could be used as such. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is **capable** of performing the intended use, then it meets the claim. There is nothing to prevent a user from utilizing the Germany '409 apparatus as a "toothbrush" for a human or any other small or large-sized living creature, for that matter, and therefore, is **capable** thereof. Any argument that the Germany '409

apparatus cannot satisfactorily brush one's teeth is unconvincing and unpersuasive. All of the recited structure of claim 1 is clearly met by Germany '409. Also, head could be a portion element 1 (Fig. 2) and the "handle" could be any distal end thereof (i.e., of element 1) which can be gripped or handled by a user. No **structure** has been set forth in claim 1 to **structurally** distinguish over Germany '409.

Applicant's arguments with respect to newly amended independent claims 12 and 25 have been considered but are moot in view of the new ground(s) of rejection.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (571) 272-1270. The examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randall Chin/
Primary Examiner, Art Unit 3723